

**REMARKS**

Entry of these amendments prior to examination on the merits is respectfully requested. Applicant has carefully considered the Final Action dated January 18, 2007. Claims 31-50 are pending. Applicant has cancelled Claims 1-30 in this Response. Applicant has added new Claims 31-50 in this Response. The above amendments and the following remarks are presented in a sincere attempt to place this Application in condition for allowance. Applicant respectfully requests reconsideration and allowance in light of the above amendments and the following remarks.

Applicant in this Response has amended the Specification to correct various typographical errors and other minor informalities. Applicant respectfully submits that no new matter has been introduced by these amendments.

Claims 1, 2, 14, and 21 stand provisionally rejected under an obviousness-type double patenting rejection. *See* Final Action, Page 3. Applicant respectfully notes that Claims 1, 2, 14, and 21 have been cancelled and therefore, these provisional rejections are moot.

Claims 1-4, 8-10, 12-13, 15, 17, and 21-22 stand rejected under 35 U.S.C. §102(b) as allegedly anticipated by Patterson and Hennessey [Computer Architecture: A Quantitative Approach] ("Patterson"). Applicant respectfully traverses these rejections. Nevertheless, Applicant notes that Claims 1-4, 8-10, 12-13, 15, 17, and 21-22 have been cancelled. Accordingly, these rejections are now moot.

Claims 5, 14, and 19 stand rejected under U.S.C. §103(a) as allegedly unpatentable over Patterson. Applicant respectfully traverses these rejections. Nevertheless, Applicant notes that Claims 5, 14, and 19 have been cancelled. Accordingly, these rejections are now moot.

Applicant has added new Claims 31-50 in this Response. Applicant respectfully submits that new Claims 31-50 are allowable over Patterson and the remaining art of record alone or in any

combination. In particular, Applicant notes that Claim 31 recites, in relevant part, “a plurality of processing elements coupled to the memory, wherein each of the processing elements uniquely couples in a point-to-point connection to a different one of the plurality of MDMs” and “wherein the memory is configured to transmit a data response to each of the processing elements in response to a data request, the data response comprising the identified data item and its associated directory information, independent of whether the associated directory information indicates an access mode compatible with the requested access mode.”

Further, Applicant notes that Claims 41 and 46 recite, in relevant part, “transmitting, through a point-to-point connection to a dedicated buffer of the memory, a data request to the memory;” and “transmitting to the processing element a data response, wherein the data response comprises the requested data item and its associated directory information, independent of whether the associated directory information indicates an access mode compatible with the requested access mode.”

That is, Applicant respectfully submits that neither Patterson nor any of the remaining references of record teach, disclose, or even suggest a point-to-point connection between the processing unit and a dedicated buffer (or MDM) of the memory. Neither does Patterson nor any of the remaining references of record teach, disclose, or even suggest transmitting the requested data item along with its associated directory information, independent of whether the requested access mode is compatible with the directory item’s current access mode. That is, in the systems and methods embodied in the unique combinations recited in the Claims, the memory sends the requested data item to the requesting processing element, with its directory information, even when that directory information indicates that the data item is unsuitable for processing in its current coherence state. Nowhere do any of the cited references even suggest this unique and advantageous approach.

Accordingly, Applicants respectfully submit that new Claims 31-50 are clearly patentable over Patterson and the remaining art of record, alone or in any combination. As such, Applicants respectfully request full allowance of Claims 31-50.

Applicant has now made an earnest attempt to place this Application in condition for allowance. For the foregoing reasons and for other reasons clearly apparent, Applicant respectfully requests full allowance of Claims 21-35.

Applicant hereby requests continued examination and hereby authorizes the Commissioner to charge the required fees to Deposit Account No. 09-0447 of IBM Corporation. Applicant does not believe that any other fees are due; however, in the event that any other fees are due, the Commissioner is hereby authorized to charge any required fees due (other than issue fees), and to credit any overpayment made, in connection with the filing of this paper to Deposit Account No. 09-0447 of IBM Corporation.

Should the Examiner deem that any further amendment is desirable to place this application in condition for allowance, the Examiner is invited to telephone the undersigned at the number listed below.

Respectfully submitted,

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